[0136] If the message is a REQ_MOD message (ie., a REQ_MOD event), at step **301**, then the method **300** proceeds to step **342**. The REQ_MOD event indicates to the recipient of the message that the originator of the message is requesting any modifications to the document that have been made since the originator previously logged out of the editing session.

[0137] At step **304**, the document received with the PUBLISH message is saved onto the hard disk drive **210**. The method **300** then continues at step **306**, where receipt of the document is acknowledged by broadcasting an ACK_DOC message. The ACK_DOC message is transmitted to all active collaborators. The ACK_DOC message is transmitted in accordance with a method **400** of acknowledging receipt of a document, as will be described below with reference to the flow diagram of **FIG. 4**. Following step **306**, the method **300** concludes and execution returns to step **101** of the method **100**.

[0138] At step **308**, a copy of the document stored in the hard disk drive **210** (i.e., the current version of the document stored in hard disk drive **210**) is loaded from the hard disk drive **210** into the memory **206**, in response to the ACK_DOC message. At the next step **310**, the version information embedded within the document is modified in order to add the originator of the message to a list of acknowledgers for the modified version of the document (ie., those collaborators who have acknowledged receiving the modifications to the document). A method **500** of modifying the version information embedded within the document as executed at step **310** will be described below with reference to the flow diagram of **FIG. 5**. The method **300** continues at the next step **312** where the modified document is saved to the hard disk drive **210** and execution continues at step **101** of the method **100**.

[0139] At step **314**, the originator of the LOGOUT message is removed from the list of active collaborators configured within memory **206** and the method **300** returns to step **101** of the method **100**.

[0140] At step **316**, the originator of the LOGIN message is added to the list of active collaborators configured within the memory **206** and execution proceeds to step **318**. At step **318**, receipt of the LOGIN message is acknowledged by the transmission of an ACK_LOGIN message to the collaborator who was the originator of the LOGIN message, and execution returns to step **101** of the method **100**. A method **600** of transmitting an ACK_LOGIN message as executed at step **318** will be described below with reference to **FIG. 6**.

[0141] At step **320**, receipt of a patch is acknowledged by broadcasting an ACK_MOD message over the network **220** to all active collaborators, in response to the MODIFY message. A method **700** of broadcasting an ACK_MOD message over the network **220** to all active collaborators, as executed at step **320**, will be described below with reference to **FIG. 7**. The method **300** then continues at the next step **322**, where a copy of the document is loaded from the hard disk drive **210** to memory **206**. Then at the next step **324**, the document stored in memory **206** is updated in accordance with the patch that was received with the MODIFY message. A method **1300** of updating a document, as executed at step **324**, will be described below with reference to **FIG. 13**. The method **300** then proceeds to step **326**, where the modified document is saved to the hard disk drive **210**, and execution returns to step **101** of the method **100**.

[0142] At step **328**, if the processor **205** determines that a login acknowledged flag (i.e., indicating that at least one collaborator has acknowledged receiving the LOGIN message) configured within memory **206** is set, in response to the ACK_LOGIN message, then the method **300** concludes and execution returns to step **101** of the method **100**. Otherwise, the method **300** proceeds to step **330**. The login acknowledged flag indicates whether login by the collaborator using the computer **200** has been acknowledged and therefore the login acknowledged flag must now be set. At step **330**, the login acknowledged flag is set by the processor **205** and execution proceeds to step **332**. At step **332**, a copy of the document is loaded from the hard disk drive **210** to memory **206**.

[0143] Then at the next step **334**, a patch is requested from the collaborator who acknowledged the login (i.e., the originator of the ACK_LOGIN message detected at step **301**) by sending the collaborator a REQ_MOD message. The REQ_MOD message indicates to the collaborator which version of the document was the last one that the hard disk drive **210** had in common with the collaborator. A method **800** of transmitting a REQ_MOD message to request a patch from collaborators, as executed at step **334**, will be described in detail below with reference to **FIG. 8**. The method **300** returns to step **101** of the method **100** following execution of the method **800**.

[0144] At step **336**, a copy of the document is loaded from the hard disk drive **210** to memory **206**, in response to the processor **205** receiving the ACK_MOD message. Then at the next step **338**, the copy of the document is modified in order to add the originator of the message to a list of acknowledgers for the current version of the document (ie., those collaborators who have acknowledged receiving the current version of the document). The method **500** of modifying the version information embedded within the document as executed at step **338** will be described in detail below with reference to **FIG. 5**. Execution then proceeds to step **340**, where the modified document is saved to the hard disk drive **210**, and execution returns to step **101** of the method **100**.

[0145] At step **342**, a copy of the document is loaded from the hard disk drive **210** to memory **206**, in response to the processor **205** receiving the REQ_MOD message. Then at the next step **344**, the processor determines the difference between the latest version stored in memory **206** (i.e., the document loaded from the hard disk drive **210**) and the version of the document that has been identified in the REQ_MOD message, as will be described in detail below with reference to **FIG. 9**. Execution then proceeds to step **346**, where a patch representing the difference determined at step **344** is transmitted over the network **220** to the collaborator who originated the REQ_MOD message. The patch is transmitted together with a MODIFY message. A method **1000** of transmitting a MODIFY message, as executed at step **346**, will be described in detail below with reference to **FIG. 10**. The method **300** then concludes and execution proceeds to step **101** of the method **300**.

[0146] **FIG. 4** is a flow diagram showing the method **400** of acknowledging receipt of a document in response to a PUBLISH message being detected by the processor **205**, as executed at step **306**. The method **400** is preferably implemented as software resident on the hard disk drive **210** and being controlled in its execution by the processor **205**.